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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,329	10/12/2001	Lilla Boroczky	US 010004	9217

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

KOSTAK, VICTOR R

ART UNIT PAPER NUMBER

2614

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/976,329

Applicant(s)

BOROCZKY ET AL.

Examiner

Victor R. Kostak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, 9-11, 15, 17-19, 23 and 25 is/are rejected.
- 7) ☒ Claim(s) 4-6, 8, 12-14, 16, 20-22 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. Applicant's arguments filed on 11/30/05 with respect to the rejection based on Fogg (later combined with Shen), in light of the amendment, have been fully considered but they are not persuasive. The rejection based on Fogg accordingly stands.

The following rejections have been adopted from previous Office actions, and the applicant's arguments are addressed in the context of the rejections.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 9-11, 15, 17, 18 23 and 25 are again rejected under 35 U.S.C. 102(e) as being anticipated by Fogg.

Reviewing Fogg (noting particularly Figs. 4, 6 and 11-13), he enhances the image quality of an initially encoded video signal based on digital processing, by incorporating a useful metric processor (component 622 in Fig. 6) which determines the useable amount of enhancement that can be applied to the initially encoded video signal without enhancing coding artifacts (e.g. col. 3 lines 35-61; col. 4 lines 38-41; col. 12 line 63 – col. 13 line 3 and lines 31-35; col. 19 lines 10-16).

Applicant is reminded that identification of an “amount” of enhancement is not exactly a quantified or quantifiable measure but in practical degrees. Application of enhancement is done more so in relative levels, wherein the visual perception of imagery is enhanced in degrees rather

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than in quantified units. With this in mind, Fogg does determine the extent of enhancement that can be used, as he determines the “*most effective* applications of enhancement processing *and/or* to avoid the creation of artifacts as a result of enhancement processing” (col. 13 lines 33-35). The “most effective” applications of the enhancement processing correspond to the amount of enhancement processing.

Secondly, knowledge of the optical pathway is only part of the decision-making. In col. 13 lines 16-19 and lines 31-35, Fogg points out that existing artifacts that are to be corrected (i.e. the enhancement thereof resulting from the enhancement of the image data being kept to a minimum) are a result of *encoding* (col. 13 lines 32-33). Block edges are inherent in block coding (a basic stage in MPEG coding) and qualify as noise because they are not image data. However, they only qualify as artifacts when they are perceivable. When image enhancement is applied to MPEG coded data, as disclosed by Fogg, the block edges become more noticeable or enhanced. Fogg counters that artifact enhancement by determining plural and varied metrics (noting again col. 4 lines 38-41; col. 12 line 63 – col. 13 line 3 and lines 31-35; col. 19 lines 10-16 cited previously, and in addition col. 17 lines 1-7 and col. 19 lines 1-9). The metrics all involve coding information. Such information is not limited to coding parameters such as quantization steps, macroblock types or forward motion vectors. Coding information is information involving some stage used in a coding process.

Applicant now refers to sections in Fogg that pertain to the correction for or the reduction of artifacts (page 15 of the remarks), in an effort to show that Fogg does not enhance artifacts as a result of enhancing the video signal.

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However, and regardless of those capabilities of Fogg that involve reduction of (or correction for) artifacts, the additional capabilities expressly discussed by Fogg cannot be dismissed from his complete disclosure despite the teaching of alternative processes. As pointed out in previous actions, repeated above, and in fact referred to (but not highlighted) by applicant on page 15 of his remarks, Fogg specifies in col. 13 lines 31-35 *"to determine the most effective enhancement processing and/or to avoid the creation of perceivable artifacts as a result of enhancement processing."* This explicitly covers for applicant's claim language, as previously explained,, thereby meeting claims 1, 3, 9 and 17.

As for claims 2, 10, 11 and 18, enhancer 303 can include a sharpening kernel (col. 8 line 64 – col. 9 line 1 describing prior art system), wherein Fogg discloses edge enhancing (e.g. Fig. 12c) that accordingly generates gain data based on plural various metrics.

As for claims 7, 15 and 23, coded data is used to determine the metrics (col. 12 line 59 – col. 13 line 3).

Regarding new claim 25, one of the metrics used by Fogg is motion vectors, discussed previously, (which could be forward or backward in MPEG coding).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 19 is again rejected under 35 U.S.C. 103(a) as being unpatentable over Fogg in view of Shen et al. (of record).

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It would have been obvious to use an adaptive peaking circuit as disclosed by Shen (element 190 in Fig. 1A) who also analyzes DCT data for the purpose of enhancing yet not increasing noise of an encoded signal stream, by using his adaptive peaking circuit. It is emphasized that Fogg's system is capable of carrying out applicant's claimed functions as well if so fashioned for that purpose, as explained in a previous Office action.

4. Claims 4-6, 8, 12-14, 16, 20-22 and 24 appear allowable over the prior art.
5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is (571) 272-7348.

The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Any response to this final action should be mailed to:**

Box AF  
Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**Or faxed to:**

**(571) 273-8300**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is (703) 308-HELP.

Victor R. Kostak



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Primary Examiner  
Art Unit 2614

VRK